ITEM: 16

SUBJECT: Maxwell Public Utilities District Wastewater Treatment Plant - Colusa County

BOARD ACTION: *Consideration of NPDES Permit Renewal*

BACKGROUND: The Maxwell Public Utilities District (Discharger) is the owner and operator of the Maxwell Public Utilities District Wastewater Treatment Plant (Facility). The current residential monthly sewer rate for service area customers is $48. Secondary-treated effluent from the Facility is discharged to an unnamed creek, tributary to the Colusa Basin Drain via Lurline Creek. Existing Waste Discharge Requirements (NPDES permit) regulates the minor discharge of up to 0.2 million gallons per day (mgd) to the receiving water. The proposed NPDES Permit renewal maintains a regulated flow of 0.2 mgd and proposes new and/or more stringent effluent limitations for ammonia, chlorodibromomethane, cyanide, and dichlorobromomethane. Proposed effluent limitations for ammonia are based on implementation of the narrative Basin Plan objective using USEPA's National Recommended Ambient Water Quality Criteria for protection of aquatic life.The Discharger plans to cease its surface-water discharges by 18 May 2010, and discharge all of its effluent to land.

The California Sportfishing Protection Alliance (CSPA) and the Central Valley Clean Water Association (CVCWA) submitted public comments on the tentative NPDES Permit issued for public review on 24 November 2008. A Response to Comments document is included in the agenda package that fully addresses the comments. Major issues, and corresponding modifications made to the tentative Permit to address the issues, are summarized below:

ISSUES: <u>Anti-backsliding:</u> CSPA comments that the replacement of turbidity effluent limitations with operational requirements, the replacement of Title 22 effluent limitations with special provisions, and the removal of effluent limitations for settleable solids constitutes backsliding.

The tentative NPDES Permit proposes performance-based operational turbidity specifications in lieu of effluent limitations. Similarly, the Title 22 treatment requirement is also proposed as a provision rather than an effluent limitation. The operational specifications and provisions are equivalent requirements that is not less stringent, and therefore do not constitute backsliding. Regarding settleable solids, monitoring data demonstrates that the discharge does not have a reasonable potential to cause or contribute to an in-stream excursion above the Basin Plan's narrative objectives for settleable material. The proposed permit, therefore, does not include effluent limitations for settleable solids based on new information consistent with antibacksliding requirements.

<u>Chronic Toxicity Limits</u> – CSPA comments that the proposed permit does not contain effluent limitations for chronic toxicity and therefore does not comply with 40 CFR 122.44(d)(1)(i) or the SIP.

The proposed Order contains new, more stringent effluent limitations based on the protection of freshwater aquatic life, and a compliance schedule for ammonia since the Discharger is not able to comply. Although chronic whole effluent toxicity data does not indicate toxicity in the discharge, Regional Water Board staff concludes that the discharge may have reasonable potential to cause or contribute to an in-stream excursion above the narrative toxicity objective based on the presence of ammonia in the discharge at levels that are toxic to aquatic life. (This was an issue addressed in State Water Board's Water Quality Order for the City of Davis (WQO 2008-0008).) Therefore, the tentative NPDES Permit has been modified to include a narrative chronic toxicity effluent limitation.

Antidegradation – CSPA commented that the proposed Permit contains an inadequate antidegradation analysis that allows for degradation of groundwater absent any analysis of best practicable treatment and control of the discharge (BPTC) and the best interest of the people of the State. Regional Water Board staff concurs that the limitation in the tentative Permit inappropriately allows for the increase in constituents and the groundwater limitation has been amended accordingly. Regional Water Board staff does not concur, however, that the proposed Permit contains an inadequate antidegradation analysis. The Permit is for an existing discharge with no increase in capacity or permitted flow. State Water Board and USEPA guidelines do not require a new antidegradation analysis in this circumstance. Groundwater data collected from December 2002 through March 2007 do not demonstrate a pattern of increasing concentrations of constituents in the down gradient groundwater.

Applicability of Title 27 – CSPA comments that the proposed Permit fails to discuss California Code of Regulations (CCR) Title 27 and whether any exemption applies for a wastewater discharge that has degraded groundwater quality. Regional Water Board staff does not concur. The aeration and oxidation ponds are part of the wastewater treatment facility and are exempt from Title 27 under section 20090(a). The proposed Permit fact sheet includes thorough discussion on the exemption and Basin Plan objectives and provisions pertaining to groundwater quality.

Absence of Effluent Limitations – CSPA comments that the proposed Permit does not contain effluent limitations for tributyltin, chloride, electrical conductivity, total dissolved solids, bis (2-ethylhexyl) phthalate, fluoride, and 4,4-DDE despite clear reasonable potential to exceed water quality standards.

For tributyltin, Regional Water Board staff has determined there is insufficient information to complete a reasonable potential analysis at this time. There are no known industrial discharges to the Facility that may be a source of the pollutant. The proposed Permit requires the Discharger to conduct quarterly monitoring for two additional years to provide further information on the concentration of tributyltin in the

Facility effluent.

For 4,4-DDE, Regional Water Board staff has determined there is insufficient information to complete a reasonable potential analysis at this time. Therefore, additional monitoring is proposed for this constituent.

For salinity (i.e., electrical conductivity, chloride, and total dissolved solids), an interim electrical conductivity limitation is proposed based on current treatment plant performance to protect the receiving water from further degradation and limit the discharge of salinity to existing levels. Electrical conductivity (EC) is an indicator parameter for salinity, and establishing an effluent limitation for EC is expected to effectively control the constituents that contribute to salinity, including total dissolved solids and chloride.

Bis (2-ethylhexyl) phthalate samples can be easily contaminated when plastic containers are used or by the use of rubber gloves. Regional Water Board staff finds there is insufficient information to conduct a reasonable potential analysis due to uncertainty in the sample results. Therefore, effluent limitations are not included in the proposed Permit. Additional monitoring is however proposed for bis (2-ethylhexyl) phthalate.

Because the agricultural water quality goal for fluoride was developed to be protective of long-term effects on agricultural resources, Regional Water Board staff evaluates reasonable potential using the observed annual average effluent concentration. The maximum annual average fluoride concentration in the Facility effluent of 780 µg/L occurred in the year 2002. Since 2002, effluent fluoride concentrations have generally decreased to levels below detection limits. Therefore, Regional Water Board staff concludes that the effluent does not exhibit reasonable potential to cause or contribute to an exceedance of the Basin Plan's narrative toxicity objective for fluoride and effluent limitations are not included in the proposed Permit.

Groundwater Limitations – CVCWA commented that the proposed NPDES Permit includes an inappropriate groundwater limitation requiring the Discharger to conduct a Best Practical Treatment or Control (BPTC) study based on Resolution No. 68-16.

Ground water quality data is not available to determine if groundwater is or was of high quality as of 1968. Nevertheless, the requirement for a BPTC study in the proposed permit has been removed since ground water data indicates that the discharge does not impact down gradient ground water quality.